Содержание

1 L3-connected BRAS description

Components

L3-connected BRAS consists of two components listed below:

1. FastDPI
2. FastPCRF

General description

L3-Connected BRAS is designed to work in distributed L3 IP networks when subscribers are connected through the intermediate routers. This design is very common, because it allows to build a distributed network with high capabilities in redundancy and in scaling up the number of nodes.

The original subscriber MAC addresses are out of the BRAS scope. IP addresses are assigned to Subscribers using other devices, such as DHCP Relay switches, VPN hubs or when the Subscriber manually sets its static IP configuration.

Differences and advantages as compared with traditional solutions

There is always necessary to create logical interfaces and configure VLAN and IP settings in traditional BRAS solutions.

By contrast there is no need for such configurations when you are using the VAS Experts DPI L3-connected BRAS. Our BRAS always handles traffic dynamically. Its source of information comes from Subscriber's traffic. Once the L3-connected BRAS gets traffic going from the Subscriber, it requests to the RADIUS server and expects to receive from it parameters specifying what services are available to the Subscriber. Then BRAS caches it upon receipt.

DPI-based L3-connected BRAS being utilized in a distributed network has many advantages and features over traditional solutions:

- Traffic monitoring and traffic prioritization according to applications and autonomous systems within the accessible band of each of the uplinks
- Limiting of the band occupied by torrent client traffic when a lack of common band arises (when torrent client tends to hog all the bandwidth)
- Prioritization of traffic according applications and autonomous systems as specified in the subscriber’s tariff plan (it is relevant for corporate clients, when many corporate users are working under one tariff plan and there is a need to allocate band to avoid their interference with each other)

- Supporting of Subscribers with an arbitrary set of IP addresses, including dynamically assigned addresses.
- Redirection of Subscribers to the Captive Portal in case of bills non-payment, along with allowed white list of resources the Subscriber may visit, for example, bank portals for payment, based on a domain name or URL, including options with wildcards (asterisks)
- Capability to get full NetFlow both for the entire bandwith or only for subscribers having tarif plans
- Support for the regulatory and law enforcement agencies requirements, automatic loading and filtering by corresponding registries
- Interaction with SORM (literally: 'System for Operative Investigative Activities') as a data collector for SORM-3.